How we May Improve Our Country Schools—By Superintendent J. Y. Joyner.

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The Progressive Farmer.

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THE CROPPING SYSTEM IN THE SOUTH.

Great Opportunities for Men Who Will Manage Large Plantations.

Editors Progressive Farmer:

The bar against any real development of agriculture in the South to-day is the ruinous cropping system. So long as the tenants merely take a piece of land for the purpose of growing a crop of cotton year after year, just so long will the lands of the South be run down and rendered more and more unproductive.

The only way out of this is the total abolishment of this ruinous system—or rather lack of any system. When men with means realize the great profit that may be made in real farming with cotton, and adopt a good system of farming and a rational tenant system, the cotton country may be made to blossom as a rose.

But to get real tenant farmers, the farms must be provided with dwellings and outbuildings suitable for real farming, and where men of means and intelligence will be willing to live. The little cabins and log hovels for mules are the bane of improvement, for no one will occupy them but the negro croppers or men too poor and unintelligent to be entrusted with the care of the land.

During the past winter I visited a section in Maryland where the efforts of one man have changed the whole agriculture of the county. The late Wm. McKinney, of Queen Anne County, Md., died a few years ago with an assessment on the tax books of his county of one million dollars in real estate, all of which he made since the war in farming with tenants. There are now on the McKinney estate forty-two farms, each with a good equipment of buildings and each occupied by an intelligent farmer. All are cultivated on share rent. The rotation is corn, wheat and clover in a three-year rotation. The costs are as nearly as possible divided between landlord and tenant, the tenant being required to keep stock enough to eat the roughage, for which the landlord gets the manure as rent, the grain crops being divided. No hay nor roughage of any sort is allowed to leave the farm, and all manure belongs to the farm, and must be regularly applied to the corn crop. The wheat is the great money crop, though corn is also sold. This system involves the getting of tenants who have stock and means for farming. The landlord pays for one-half the lime applied every four or five years and half the fertilizer for the wheat, which is generally only acid phosphate.

The result is that the farms have rapidly increased in productiveness and landlord and tenants have both done well, and the farms are in constant demand by men who are able and willing to farm well. The same system is extending through the neighboring counties. In the adjoining county of Kent, Capt. Andrew Woodall has been following the same system and now has thirty-five farms and is known as a millionarie.

In the South a similar system could be made to bring far greater profits to landlord and tenant because our cotton crop is the best money crop in the whole country when properly grown. Just as in Maryland they now look upon thirty bushels of wheat per acre as the minimum crop, so in the South with good farming the bale per acre would soon be considered the minimum instead of the maximum crop.

There is a greater opportunity for the profitable investment of capital in good farming with cotton than in any enterprise that the moneyed men of the South can engage in. With a good short rotation of crops and the intelligent use of our great renovating and forage crop, the cowpea, instead of talking about the corn and small grain crops as "supplies" they would soon become of such proportions as to become real money crops to pay all the costs of the production of the cotton. If men could become millionaries in the growing of wheat at the prices ruling in late years since the war, how much more rapidly could they become millionaries in the cultivation of cotton in an intelligent system! But to start a real tenant system that will attract real farmers, the farms must have farm houses and barns in place of the cabins and log hovels. There are fortunes waiting for men of means in this. Who will start it in the South?

W. F. MASSEY,
(Editor of Practical Farmer.)

TALKS ON INSECT PESTS.

III.—Spraying: Where New Pests Come From.

Editors Progressive Farmer:

Sometime ago we had an article in this paper urging that apple and pear trees be sprayed this spring. In that article it was stated that it was already time to be getting ready for the work if it was to be undertaken. But we are still getting letters from Progressive Farmer readers asking for the circulars on spraying apparatus. It is now rather late to be ordering a spray pump if it is intended to spray apple and pear trees before they bud out. You should have attended to it promptly when that article appeared. But, better late than never, and if you order a good pump immediately you may yet get it in time to make the second and third applications, and these should give some benefit even if you do not get in the first application at the proper time. At any rate you will have it for another season. See advertisements of spraying apparatus now appearing in The Progressive Farmer.

Thus far the season has not been very favorable to spraying. The winter hung on late and now the spring is rainy so that an application is apt to be somewhat washed off, but we sprayed most of our trees last week nevertheless, and expect to spray the remainder in a day or two. Of course if it keeps on rainy the trees are not apt to set much fruit, but we must take our chances about that, and if our spraying proves a failure this year, we shall not be at all shaken in our faith in the operation, for there is not the slightest doubt that spraying is very profitable in average years, whether it proves to be so this particular season or not.

* * *

We are often asked where all the different kinds of insect pests come from. That is a very natural question for any observant person to ask, for it is a fact that in past times our forefathers were not as much troubled with insect pests as we are to-day. For instance, the common white cabbage butterfly, the Hessian fly in wheat, the San Jose scale, the potato beetle and the terrapin bug are none of them native to North Carolina, yet are now to be found widely distributed in the State. How is this to be explained? We will consider very briefly three of the principal sources of new insect pests.

I. Natural Increase.—In times past not much attention was given to insect pests, and there were not such good means for combating them, therefore they have multiplied very rapidly and are now much more destructive than formerly. This consideration applies to such species as have been here all the time.

2. Destruction of Wild Vegetation.—When we destroy a wild plant we deprive certain insects of their food and they are compelled to find sustenance elsewhere or starve, therefore if they can subsist on a cultivated plant they will do so. Let us be more explicit. A young farmer buys a place containing woods and fields all grown up to native trees, weeds and grass. There will perhaps be three hundred kinds of plants growing in profusion. These are cut down, plowed up, burned, or otherwise destroyed and in their place the farmer plants peaches, apples and peas, and perhaps twenty different kinds of farm crops and garden vegetables. Now, isn't it natural that many of the insects which formerly fed on the plants which were destroyed, should turn their attacks upon the plants which were put in their place. The potato beetle is an excellent illustration. It formerly fed on a wild plant (related to the potato) in the neighborhood of the Rocky Mountains, but when the white man went there he destroyed this native plant and raised potatoes. Then the beetle, finding its native plant destroyed and finding a cultivated plant even more to its liking, began to attract attention by destroying the potatoes, and started to spread from potato patch to potato patch across the country. It apparently reached North Carolina about 1877, and as nearly as I can make out, must have first appeared in Gaston or Mecklenburg Counties, and there may yet be some localities in the State which it has not reached.

3. Commerce.—Insect pests may be spread by commerce. Thus one of the most frequent means of spreading scale insects is by infested trees being shipped from place to place. The introduction of the railroad has had considerable influence in this regard, for by it mosquitoes have been carried bodily into high mountain regions where they were formerly unknown. The white cabbage butterfly was introduced into this country from Europe as was also the Hessian fly, now so destructive to wheat in the Piedmont region of North Carolin. The cotton boll weevil, which is now doing great damage in Texas, will probably eventually reach this State by means of railroad transportation, though we may well hope that this shall not occur soon.

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